



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,787	03/22/2004	Prashant Sethi	ITL.1576US (P18870)	2369
21906 7590 02/20/2008 TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631			EXAMINER LEE, CHUN KUAN	
			ART UNIT 2181	PAPER NUMBER
			MAIL DATE 02/20/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/806,787

Applicant(s)

SETHI ET AL.

Examiner

Chun-Kuan (Mike) Lee

Art Unit

2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

CONTINUED EXAMINATION UNDER 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/10/2007 has been entered.

RESPONSE TO ARGUMENTS

2. Applicant's arguments with respect to claims 1-3, 5-6 and 8-20 have been considered but are moot in view of the new ground(s) of rejection. Currently, claims 4, 7 and 21 are canceled and claims 1-3, 5-6 and 8-20 are pending for examination

I. REJECTIONS BASED ON 35 U.S.C. 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8, 11 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 11 recite the limitation "the network fabric" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the chipset" in line 2. There is insufficient antecedent basis for this limitation in the claim.

As per claims 8 and 11, it is not fully clear as to which "network fabric" the applicant is referring to, the examiner will assume the claimed limitations of "a network fabric" in place of "the network fabric" in the respective claims for the current examination.

As per claim 17, it is not fully clear as to which "chipset" the applicant is referring to.

II. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2-3, 5 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of "BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors".

5. As per claim 1, AAPA teaches a method comprising:

converting (e.g. decoding) a configuration access corresponding to a memory address or Input Output (IO) address within a decoder of a second processor (Drawings, Processor 1 of Figure 1), the second processor coupled to a first processor (Drawings, Processor 2 of Figure 1), for configuration (Specification, page 2, ll. 16-24); and

the second processor (Drawings, Processor 1 of Figure 1) directly connected to the integrated device of the first processor (Drawings, Processor 2 of Figure 1).

AAPA does not teach the method comprising:

a configuration cycle for configuration of the integrated device in the first processor; and

routing the configuration cycle from the decoder to the first processor

BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™

Processors teaches a method for configuring an integrated device in a first processor (e.g. processor node or application processor (AP)) (Section 2.1 on page 21 and Section 2.1.4 on page 23) comprising:

a configuration cycle for configuration of an integrated device in a first processor (e.g. AP) (Section 2.1 on page 21; Section 2.1.4 on page 23 and Section 3.1 on page 25), as the system operates in accordance to Hyper Transport Technology, wherein the Hyper Transport Technology discloses the corresponding configuration cycle (HyperTransport™ Technology I/O Link, Chapter 7 on page 67 and Chapter 9 on page

109), wherein address range FD_FE00_0000h to FD_FFFF_FFFFh is associated with the configuration; and

routing the configuration cycle from a decoder (e.g. decoder in the BSP) to the first processor (e.g. AP) based at least in part on a routing information to configure the integrated device from an unconfigured state to a configured state (pages 21-22; Section 2.1.4 on page 23; Section 3.1 on page 25 and Chapter 8 on page 203).

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors' routing of configuration cycle into AAPA's multi-processor system for the benefit of enabling the proper configuration of the processors via the utilization of Hyper Transport technology having high-speed, high-performance, point-to-point link for interconnection the processors to obtain the invention as specified in claim 1.

6. As per claim 2, AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors teach all the limitations of claim 1 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the method comprising wherein the configuration cycle is routed via a network fabric (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

7. As per claim 3, AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors teach all the limitations of claim 2 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the method comprising wherein the network fabric is a plurality of point to point links (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

8. As per claim 5, AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors teach all the limitations of claim 2 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the method comprising wherein the second processor is coupled to the first processor via the network fabric (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

9. As per claim 15, AAPA teaches a system comprising:

a first processor (Drawings, Processor 1 of Figure 1) with a decoder coupled to a second network component (Drawings, Processor 2 of Figure 1) with an integrated

device, the decoder to decode either a memory or IO configuration access for configuration (Specification, page 2, ll. 14-24); and

the processor (Drawings, Processor 1 of Figure 1) directly connected to the integrated device of the second network component (Drawings, Processor 2 of Figure 1).

AAPA does not teach the system comprising:

a configuration cycle for configuration of the integrated device; and

to transmit the configuration cycle to the integrated device, wherein the configuration cycle adheres to a first type of interconnect protocol.

BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™

Processors teaches a system and a method comprising:

a configuration cycle for configuration of an integrated device of a second network component (e.g. AP) (Section 2.1 on page 21; Section 2.1.4 on page 23 and Section 3.1 on page 25), as the system operates in accordance to Hyper Transport Technology, wherein the Hyper Transport Technology discloses the corresponding configuration cycle (HyperTransport™ Technology I/O Link, Chapter 7 on page 67 and Chapter 9 on page 109), wherein address range FD_FE00_0000h to FD_FFFF_FFFFh is associated with the configuration;

to transmit (e.g. transmit via routing) the configuration cycle to the integrated device, wherein the configuration cycle adheres to a first type of interconnect protocol (e.g. Hyper Transport link) (pages 21-22; Section 2.1.4 on page 23; Section 3.1 on page 25 and Chapter 8 on pages 203-204).

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors' routing of configuration cycle into AAPA's multi-processor system for the benefit of enabling the proper configuration of the processors via the utilization of Hyper Transport technology having high-speed, high-performance, point-to-point link for interconnection the processors to obtain the invention as specified in claim 15.

10. As per claim 16, AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors teach all the limitations of claim 15 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the system comprising wherein the first type of interconnection protocol comprises a PCI type protocol (where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, Section 2.1.1 on pages 21-22 and Section 3.1 on page 25).

11. As per claim 17, AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors teach all the limitations of claim 15 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the system comprising wherein the configuration cycle is routed to the integrated device or the chipset via a network fabric (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™

Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

12. Claims 6, 8-14 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of "BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors" and Downer et al. (US Patent 6,910,108).

13. As per claim 6, AAPA teaches a method comprising:

decoding an Input Output (IO) configuration access within a second processor (Drawings, Processor 1 of Figure 1), coupled to a first processor (Drawings, Processor 2 of Figure 1), for configuration (Specification, page 2, ll. 16-24); and

the second processor (Drawings, Processor 1 of Figure 1) directly connected to the integrated device of a first processor (Drawings, Processor 2 of Figure 1).

AAPA does not teach the method comprising:

a configuration cycle for configuration of the integrated device in the first processor;

wherein the decoding includes retrieving a node identifier ...; and

routing the configuration cycle including the node identifier and the port number from the second processor

BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™

Processors teaches a method for configuring an integrated device in a first processor (e.g. processor node or application processor (AP)) (Section 2.1 on page 21 and Section 2.1.4 on page 23) comprising:

a configuration cycle for configuration of an integrated device in a first processor (e.g. AP) (Section 2.1 on page 21; Section 2.1.4 on page 23 and Section 3.1 on page 25), as the system operates in accordance to Hyper Transport Technology, wherein the Hyper Transport Technology discloses the corresponding configuration cycle (HyperTransport™ Technology I/O Link, Chapter 7 on page 67 and Chapter 9 on page 109), wherein address range FD_FE00_0000h to FD_FFFF_FFFFh is associated with the configuration; and

decoding (e.g. decoding via initialization) includes retrieving a node identifier (e.g. node ID) using a configuration address associated with the IO configuration access (Page 21; Section 8.3 on page 204 and HyperTransport™ Technology I/O Link, Chapter 7 on pages 67-69; Chapter 9 on page 109); and

routing the configuration cycle including the node identifier (e.g. Node ID) from a second processor (e.g. BSP) to the integrated device in the first processor (e.g. AP) based at least in part on a routing information to configure the integrated device from an unconfigured state to a configured state (pages 21-22; Section 2.1.4 on page 23; Section 3.1 on page 25 and Chapter 8 on pages 203-204).

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include BIOS and Kernel Developer's Guide for AMD Athlon™

64 and AMD Opteron™ Processors' routing of configuration cycle into AAPA's multi-processor system for the benefit of enabling the proper configuration of the processors via the utilization of Hyper Transport technology having high-speed, high-performance, point-to-point link for interconnection the processors to obtain the invention as specified in claim 6.

AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors do not expressly teach the method comprising retrieving a port number.

Downer teaches a multiprocessor system and method comprising retrieving a port number (e.g. Port ID) (Fig. 1; col. 11, ll. 18-37 and col. 12, 25-34), wherein the retrieving is implemented by utilizing a received address data.

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include Downer's Port ID into AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors' decoding process for the benefit of increasing the accuracy and robustness in the routing of data to obtain the invention as specified in claim 6.

14. As per claim 8, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 6 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the method comprising wherein a network

fabric is a plurality of point to point links (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

15. As per claim 9, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 6 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the method comprising wherein the configuration adheres to an interconnection of predetermined protocol (e.g. PCI protocol) (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, Section 2.1.1 on pages 21-22 and Section 3.1 on page 25).

16. As per claim 10, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 9 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the method comprising wherein the predetermined protocol comprises a PCI type interconnect protocol (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, Section 2.1.1 on pages 21-22 and Section 3.1 on page 25).

17. As per claim 11, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 6 as discussed above, where AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teach the method comprising wherein the second processor is coupled to a PCI type interconnection via a network fabric is a plurality of point to point links (AAPA, Specification, page 2, ll. 11-17; BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

18. As per claim 12, AAPA teaches a processor (Drawings, Processor 1 of Figure 1) comprising:

a decoder to decode either a memory or IO configuration access for configuration (Specification, page 2, ll. 14-24);

the processor (Drawings, Processor 1 of Figure 1) directly connected to the integrated device of a second processor (Drawings, Processor 2 of Figure 1).

AAPA does not teach the processor comprising:

a configuration cycle for configuration of the integrated device of the second processor ... ; and

to transmit the configuration cycle to the integrated device.

BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™

Processors teaches a system and a method comprising:

a configuration cycle for configuration of an integrated device of a second processor (e.g. AP) (Section 2.1 on page 21; Section 2.1.4 on page 23 and Section 3.1 on page 25), as the system operates in accordance to Hyper Transport Technology, wherein the Hyper Transport Technology discloses the corresponding configuration cycle (HyperTransport™ Technology I/O Link, Chapter 7 on page 67 and Chapter 9 on page 109), wherein address range FD_FE00_0000h to FD_FFFF_FFFFh is associated with the configuration,

decoding (e.g. decoding via initialization) include receive a configuration address and provide a node identifier (e.g. node ID) corresponding to an address range of the configuration address (e.g. FD_FE00_0000h to FD_FFFF_FFFFh) (Page 21; Section 8.3 on page 204 and HyperTransport™ Technology I/O Link, Chapter 7 on pages 67-69; Chapter 9 on page 109); and

to transmit (e.g. transmit via routing) the configuration cycle to the integrated device (pages 21-22; Section 2.1.4 on page 23; Section 3.1 on page 25 and Chapter 8 on pages 203-204).

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors' routing of configuration cycle into AAPA's multi-processor system for the benefit of enabling the proper configuration of the processors via the utilization of Hyper Transport technology having high-speed, high-performance,

point-to-point link for interconnection the processors to obtain the invention as specified in claim 12.

AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors do not expressly teach the system comprising providing a port identifier corresponding to a range of the node identifier.

Downer teaches a multiprocessor system and method comprising providing a port identifier (e.g. Port ID) corresponding to a range of the node identifier (e.g. node ID) (Fig. 1; col. 11, ll. 18-37 and col. 12, 25-54), wherein the retrieving is implemented by utilizing a received address data.

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include Downer's Port ID into AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors' decoding process for the benefit of increasing the accuracy and robustness in the routing of data to obtain the invention as specified in claim 12.

19. As per claim 13, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 12 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the processor comprising wherein the transmission of the configuration to either the chip set or integrated device is via a PCI type interconnection (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and

AMD Opteron™ Processors, Section 2.1.1 on pages 21-22 and Section 3.1 on page 25).

20. As per claim 14, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 12 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the processor comprising wherein the configuration cycle is to be routed to the integrated device via a network fabric (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

21. As per claim 18, AAPA teaches an article of manufacture comprising:

a machine-readable storage medium having stored thereon a plurality of machine readable instructions, wherein when the instructions are executed by a system (Drawings, Figure 1 and Specification, page 2, ll. 9-24), the instructions provide for configuration comprising:

decoding either a memory or IO configuration access to a configuration cycle in a decoder of a second processor (Drawings, Processor 1 of Figure 1) for configuration (Specification, page 2, ll. 14-24); and

the second processor (Drawings, Processor 1 of Figure 1) directly connected an integrated device the processor (Drawings, Processor 2 of Figure 1).

AAAP does not teach the article comprising:

a configuration cycle for configuring the integrated device in the processor;

wherein the decoder is to receive a configuration address ... ;

transmitting the configuration cycle from the second processor

BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™

Processors teaches a system and a method comprising:

a configuration cycle for configuration of an integrated device of a processor (e.g. AP) (Section 2.1 on page 21; Section 2.1.4 on page 23 and Section 3.1 on page 25), as the system operates in accordance to Hyper Transport Technology, wherein the Hyper Transport Technology discloses the corresponding configuration cycle

(HyperTransport™ Technology I/O Link, Chapter 7 on page 67 and Chapter 9 on page 109), wherein address range FD_FE00_0000h to FD_FFFF_FFFFh is associated with the configuration,

decoding (e.g. decoding via initialization) include receive a configuration address and provide a node identifier (e.g. node ID) corresponding to an address range of the configuration address with the configuration cycle (e.g. FD_FE00_0000h to FD_FFFF_FFFFh) (Page 21; Section 8.3 on page 204 and HyperTransport™ Technology I/O Link, Chapter 7 on pages 67-69; Chapter 9 on page 109); and

transmitting (e.g. transmit via routing) the configuration cycle from a second processor (e.g. BSP) to the integrated device, wherein the configuration cycle adheres

to a first type of interconnect protocol (e.g. Hyper Transport link); (pages 21-22; Section 2.1.4 on page 23; Section 3.1 on page 25 and Chapter 8 on pages 203-204).

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors' routing of configuration cycle into AAPA's multi-processor system for the benefit of enabling the proper configuration of the processors via the utilization of Hyper Transport technology having high-speed, high-performance, point-to-point link for interconnection the processors to obtain the invention as specified in claim 18.

AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors do not expressly teach the system comprising providing a port identifier corresponding to a range of the node identifier.

Downer teaches a multiprocessor system and method comprising providing a port identifier (e.g. Port ID) corresponding to a range of the node identifier (e.g. node ID) (Fig. 1; col. 11, ll. 18-37 and col. 12, 25-54), wherein the retrieving is implemented by utilizing a received address data.

It would have been obvious for one of ordinary skill in this art, at the time of invention was made to include Downer's Port ID into AAPA and BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors' decoding process for the benefit of increasing the accuracy and robustness in the routing of data to obtain the invention as specified in claim 18.

22. As per claim 19, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 18 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the article of manufacture comprising wherein the integrated device is coupled to the decoder of the second processor coupled to the processor or network component via a network fabric (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, page 21, page 204 and HyperTransport™ Technology I/O Link, Figure 10 on page 20; 'The HyperTransport™ Technology Solution' Section on page 4).

23. As per claim 20, AAPA, BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors and Downer teach all the limitations of claim 18 as discussed above, where BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors further teaches the article of manufacture comprising wherein the first type of interconnect protocol is in accordance with a PCI type protocol (BIOS and Kernel Developer's Guide for AMD Athlon™ 64 and AMD Opteron™ Processors, Section 2.1.1 on pages 21-22 and Section 3.1 on page 25)

III. CLOSING COMMENTS

Conclusion

a. STATUS OF CLAIMS IN THE APPLICATION

The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. 707.07(i)**:

a(1) CLAIMS REJECTED IN THE APPLICATION

Per the instant office action, claims 1-3, 5-6 and 8-20 have received a first action on the merits and are subject of a first action non-final.

b. DIRECTION OF FUTURE CORRESPONDENCES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

IMPORTANT NOTE

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571) 272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/806,787
Art Unit: 2181

Page 21

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 05, 2008

Chun-Kuan (Mike) Lee
Examiner
Art Unit 2181



ALFORD KINDRED
SUPERVISORY PATENT EXAMINER